

Attorney's Docket: 2002DE106  
Serial No.: 10/510.086  
Art Unit 1755  
Response to Office Action of October 3, 2007

### **REMARKS/ARGUMENTS**

The Office Action mailed October 3, 2007 has been carefully considered together with each of the references cited therein. The amendments and remarks presented herein are believed to be fully responsive to the Office Action. Accordingly, reconsideration of the present Application in view of the following remarks is respectfully requested.

#### **Applicant's Comments related to the Ashley Patent:**

Applicant's invention relates to a method for coloring a fertilizer with a pigment preparation. The pigment preparation comprises an organic pigment selected from the group consisting of monoazo pigments, diazo pigments, diazo condensation pigments, laked azo pigments, triphenylmethane pigments, thio indigo pigments, thiazine-indigo pigments, perylene pigments, perinone pigments, anthanthrone pigments, diketopyrrolopyrrole pigments, dioxazine pigments, quinacridone pigments, phthalocyanine pigments, isoindolinone pigments, isoindoline pigments, benzimidazolone pigments, naphthol pigments, quinophthalone pigments, furnace blacks and gas blacks.

According *Hawley's Condensed Chemical Dictionary*, 14<sup>th</sup> Ed., published by John Wiley & Sons, Inc., 2001, at page 268, the following terms are understood by one skilled in the art:

(At page 268) A **chromophore** is "a chemical grouping that when present in an aromatic compound (the chromogen), gives color to the compound by causing a displacement of, or appearance of, absorbent bands in the visible spectrum."

(At page 879) A **pigment** is "any substance, usually in the form of a dry powder, that imparts color to another substance. Most pigments are insoluble in organic solvents and water."

**Clearly, no one skilled in the art would confuse a chromophore with a pigment.**

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The US Patent No. 6,486,248 to Ashley et al. (hereinafter referred to as 'Ashley', discloses and claims a solvent-free, diluent free, **hydrocarbon soluble liquid polymeric colorant** and a method for applying the hydrocarbon soluble liquid polymeric colorant to solid granular substrates. In claim 15, Ashley recites a solvent free, diluent free, liquid hydrocarbon soluble **colorant** comprising a **chromophore**, an oleophilic binder and at least one reactive group. Claim 16, further limits the chromophore of claim 15 to a chromophore selected from the group consisting of azo, TPM, methane, anthraquinone or any combination thereof. **Anyone skilled in the art would recognize that the chromophores recited in Ashley refer to chemical groups which are attached to the oleophilic binder in a polymeric colorant, and as such are not the same as or equivalent to pigments.** Furthermore, it is critical in Ashley that the color bearing material be "liquid hydrocarbon soluble. Pigments, particularly the pigments recited in Applicant's claim 1, are not soluble in organic solvents, such as hydrocarbons. **Still further, no one skilled in the art would expect any success by the substitution of any of Applicant's pigments for the polymeric colorant of Ashley, particularly when Ashley teaches away from such a substitution.** In Ashley at column 2, lines 3-6, wherein Ashley states:

"Another objective of the present invention is to provide a method for coloring solid granular substrates, such as fertilizer, that **eliminates the use of solvent dyes and pigments...**"

In column 1, Ashley specifically addresses pigments, by pointing out, "Pigments provide non-migrating colors, **but are generally not soluble** in a dedusting agent or binder. Thus, the **colorant** in Ashley is not and cannot be a pigment, but must be a liquid hydrocarbon soluble polymeric colorant comprising chromophores. Ashley teaches away from the use or substitution of the liquid hydrocarbon soluble polymeric colorant with an organic pigment, which even Ashley discloses is not soluble in liquid hydrocarbon.

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**Applicant's Response to Previous Rejections which were not addressed in Examiner's Action:**

Claims 1, 3, 5-13 were previously rejected under 35 U.S.C. 103(a) as being unpatentable over WO 00/76649 A1 to Lofgren et al. ('649 Paper) in view of WO 97/19030 to Tilokavichai et al. ('030 Paper). The rejection of claim 1, as amended, under 35 U.S.C. 103(a) as being unpatentable over WO 00/76649 A1 to Lofgren et al. ('649 Paper) in view of WO 97/19030 to Tilokavichai et al. ('030 Paper), should be withdrawn for the reason that both the '649 and the '030 Papers are directed to the coloring of fertilizers, but both the '649 and '030 Papers teach away from Applicant's invention by employing inorganic talcs, metal oxides and silica pigments, and for the reason that the '649 and '030 Papers are silent on any use of organic pigments as claimed by Applicant, and no one skilled in the art would arrive at Applicant's invention from any combination of the disclosures the '649 or the '030 Papers. The '649 Paper discloses and claims a method of coating fertilizer particles with a coating composition comprising an inorganic pigment. The '649 Paper is silent on the use of any organic pigment. Thus, the '649 Paper teaches away from Applicant's process for coloring fertilizer particles with organic pigments and no one skilled in the art would have any expectation of success for substituting an organic pigment for the inorganic pigment. The '030 Paper may provide an equivalence of mineral oil and vegetable oil in suspending inorganic pigments for coloring fertilizers, but the '030 Paper only teaches the use of inorganic pigments, and teaches away or is at best silent on the use of any organic pigments to color fertilizer particles. Thus, the process of Applicant's invention is different from the process of the '649 Paper and the '030 Paper, and no one skilled in the art would replace the inorganic pigment with an organic pigment in the process of the '649 and the '030 Papers because both papers disclose the difficulty of coloring fertilizers and fertilizer blends with an even distribution of pigment, and for the reason that there is no expectation of success for such a substitution. Therefore, the rejection of claim 1, as amended, under 35 U.S.C. 103(a) as being unpatentable over WO 00/76649 A1 to Lofgren et al. ('649 Paper) in view of WO 97/19030 to Tilokavichai et al. ('030 Paper), should be withdrawn for the reason that both the '649 and '030 Papers teach away from

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applicant's invention by **requiring an inorganic pigment which is absent from Applicant's invention, and no one skilled in the art would be motivated to replace the inorganic pigment in the methods of the '649 and '030 Papers with the organic pigments recited in Applicant's claim 1, because there is no expectation of success and no one skilled in the art would be motivated to make the substitution without the improper use of hindsight.** The rejection of claims 3 and 5-13, as amended under 35 U.S.C. 103(a) as being unpatentable over WO 00/76649 A1 to Lofgren et al. ('649 Paper) in view of WO 97/19030 to Tilokavichai et al. ('030 Paper), should be withdrawn for the reasons given in support of amended claim 1 from which they depend.

**Applicant's Response to the above 103 Rejections in view of Ashley:**

Claim 1-3 and 6-13 were again rejected under 35 U.S.C. 103(a) as being unpatentable over WO 00/76649 A1 to Lofgren et al. ('649 Paper) in view of WO 97/19030 to Tilokavichai et al. ('030 Paper) and further in view of US Patent No. 6,486,248 to Ashley ('248 Patent). The rejection of claim 1 under 35 U.S.C. 103(a) as being unpatentable over WO 00/76649 A1 to Lofgren et al. ('649 Paper) in view of WO 97/19030 to Tilokavichai et al. ('030 Paper) and further in view of US Patent No. 6,486,248 to Ashley ('248 Patent), should be withdrawn for the reasons given hereinabove in connection with the '649 and the '030 Papers which taught away from applicant's invention, and for the reason that the '248 Patent to **Ashley specifically teaches away from Applicant's invention.** The '248 Patent discloses liquid polymeric colorants which as discussed hereinabove are not the same as Applicant's organic pigments, and from which the '248 Patent teaches away. The liquid polymeric colorants disclosed in '248 Patent are colorants which are **hydrocarbon soluble liquid polymeric colorants.** None of the organic pigments recited in Applicant's invention are either hydrocarbon soluble or polymeric. A hydrocarbon soluble liquid polymeric colorant having an azo chromophore (See '248 at column 2, lines 20-22) is not the same as Applicant's monoazo **pigments**, diazo condensation **pigments**, or laked azo **pigments** (See '248 in Col 2, lines 3-7). The

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instant invention, by employing materials that, to one of ordinary skill, suggested problems rather than a solution, proceeds in a direction contrary to the prior art. This strongly supports the unobviousness of the claimed invention. Furthermore, piecemeal reconstruction of the prior art patents in the light of Applicant's disclosure shall not be the basis for a holding of obviousness, particularly when the prior art teaches away from the combination. Therefore, the rejection of claim 1 under 35 U.S.C. 103(a) as being unpatentable over WO 00/76649 A1 to Lofgren et al. ('649 Paper) in view of WO 97/19030 to Tilokavichai et al. ('030 Paper) and further in view of US Patent No. 6,486,248 to Ashley ('248 Patent), should be withdrawn for the reason that

1. All the references teach away from Applicant's invention as discussed hereinabove, particularly the '248 Patent (Ashley) which teaches the use of a liquid polymeric colorant which is soluble in hydrocarbon medium and teaches away from Applicant's organic pigments, and it is improper to combine only certain parts of those references when the references teach away from the invention;
2. Chromophores or polymeric colorants having chromophores are not pigments;
3. Failure to consider the invention as a whole is an error of law;
4. No one skilled in the art would be motivated to arrive at Applicant's invention based on the cited references without the improper use of hindsight using the Applicant's own Specification as a guide.

The rejection of claims 2-3 and 6-13 under 35 U.S.C. 103(a) as being unpatentable over WO 00/76649 A1 to Lofgren et al. ('649 Paper) in view of WO 97/19030 to Tilokavichai et al. ('030 Paper) and further in view of US Patent No. 6,486,248 to Ashley ('248 Patent), should be withdrawn for the reasons given in support of claim 1, from which they depend.

It is respectfully submitted that, in view of the above remarks, the rejections under §103 should be withdrawn and that this application is in a condition for an allowance of all pending claims. Accordingly, favorable reconsideration and an allowance of all pending claims are courteously solicited.